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second electrode of said capacitor is at a ground potential, and wherein said second electrode of said optical sensor is electrically connected to a bias terminal.

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6. (Amended) An image sensor comprising:

an optical sensor having a first electrode and a second electrode formed over a substrate;

a thin film transistor electrically connected to a first electrode of said optical sensor in series;

a capacitor having a first electrode and a second electrode, wherein said first electrode of said capacitor is electrically connected to said first electrode of said optical sensor between said optical sensor and said thin film transistor, wherein said second electrode of said capacitor is at a ground potential, and wherein said second electrode of said optical sensor is electrically connected to a bias terminal; and

an amplifier electrically connected to said thin film transistor in series.

Please add new claims 21-63 as follows.

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--21. A method of manufacturing an optical sensor comprising:

forming a gate electrode over a substrate;

forming a gate insulating film on the gate electrode;

forming a first amorphous semiconductor layer on the gate insulating film;

crystallizing the first amorphous semiconductor layer;

introducing an impurity element into the crystallized semiconductor layer so as to form a pair of impurity regions with a channel region interposed therebetween;

forming a second amorphous semiconductor layer on the crystallized semiconductor layer; and

forming a transparent conductive film on the second amorphous semiconductor layer.

22. A method of manufacturing an optical sensor according to claim 21, wherein the gate insulating film comprises at least one of silicon oxide and silicon nitride.

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23. A method of manufacturing an optical sensor according to claim 21, wherein the crystallizing step is conducted by irradiating the first amorphous semiconductor film with a laser light.

24. A method of manufacturing an optical sensor according to claim 21, wherein the transparent conductive film comprises indium tin oxide.

25. A method of manufacturing an optical sensor according to claim 21, wherein the pair of impurity regions are a source and a drain regions.

26. A method of manufacturing an optical sensor according to claim 21, wherein the second amorphous semiconductor film is intrinsic.

27. A method of manufacturing an optical sensor according to claim 21, wherein the optical sensor is at least one of a linear image sensor and an area image sensor.

28. A method of manufacturing an optical sensor comprising:

forming a gate electrode over a substrate;

forming a gate insulating film on the gate electrode;

forming a first amorphous semiconductor layer on the gate insulating film;

crystallizing the first amorphous semiconductor layer;

introducing an impurity element into the crystallized semiconductor layer so as to form a pair of impurity regions with a channel region interposed therebetween;

forming a second amorphous semiconductor layer so as to cover at least the channel region; and

forming a transparent conductive film on the second amorphous semiconductor layer.

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29. A method of manufacturing an optical sensor according to claim 28, wherein the gate insulating film comprises at least one of silicon oxide and silicon nitride.

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30. A method of manufacturing an optical sensor according to claim 28, wherein the crystallizing step is conducted by irradiating the first amorphous semiconductor film with a laser light.

31. A method of manufacturing an optical sensor according to claim 28, wherein the transparent conductive film comprises indium tin oxide.

32. A method of manufacturing an optical sensor according to claim 28, wherein the pair of impurity regions are a source and a drain regions.

33. A method of manufacturing an optical sensor according to claim 28, wherein the second amorphous semiconductor film is intrinsic.

34. A method of manufacturing an optical sensor according to claim 28, wherein the optical sensor is at least one of a linear image sensor and an area image sensor.

35. A method of manufacturing an optical sensor comprising:

forming a gate electrode over a substrate;

forming a gate insulating film on the gate electrode;

forming a first amorphous semiconductor layer on the gate insulating film;

crystallizing the first amorphous semiconductor layer;

introducing an impurity element into the crystallized semiconductor layer so as to form a pair of impurity regions with a channel region interposed therebetween;

forming a second amorphous semiconductor layer so as to cover at least a portion of the channel region; and

forming a transparent conductive film on the second amorphous semiconductor layer.

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36. A method of manufacturing an optical sensor according to claim 35, wherein the gate insulating film comprises at least one of silicon oxide and silicon nitride.

37. A method of manufacturing an optical sensor according to claim 35, wherein the crystallizing step is conducted by irradiating the first amorphous semiconductor film with a laser light.

38. A method of manufacturing an optical sensor according to claim 35, wherein the transparent conductive film comprises indium tin oxide.

39. A method of manufacturing an optical sensor according to claim 35, wherein the pair of impurity regions are a source and a drain regions.

40. A method of manufacturing an optical sensor according to claim 35, wherein the second amorphous semiconductor film is intrinsic.

41. A method of manufacturing an optical sensor according to claim 35, wherein the optical sensor is at least one of a linear image sensor and an area image sensor.

42. A method of manufacturing an optical sensor comprising:

forming a gate electrode over a substrate;

forming a gate insulating film on the gate electrode;

forming a first amorphous semiconductor layer on the gate insulating film;

crystallizing the first amorphous semiconductor layer;

introducing an impurity element into the crystallized semiconductor layer so as to form a pair of impurity regions with a channel region interposed therebetween;

forming a second amorphous semiconductor layer so as to cover at least the channel region; and

forming a transparent conductive film on the second amorphous semiconductor layer and on one of the pair of impurity regions.

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43. A method of manufacturing an optical sensor according to claim 42, wherein the gate insulating film comprises at least one of silicon oxide and silicon nitride.

44. A method of manufacturing an optical sensor according to claim 42, wherein the crystallizing step is conducted by irradiating the first amorphous semiconductor film with a laser light.

45. A method of manufacturing an optical sensor according to claim 42, wherein the transparent conductive film comprises indium tin oxide.

46. A method of manufacturing an optical sensor according to claim 42, wherein the pair of impurity regions are a source and a drain regions.

47. A method of manufacturing an optical sensor according to claim 42, wherein the second amorphous semiconductor film is intrinsic.

48. A method of manufacturing an optical sensor according to claim 42, wherein the optical sensor is at least one of a linear image sensor and an area image sensor.

49. A method of manufacturing an optical sensor comprising:

forming a gate electrode over a substrate;

forming a gate insulating film on the gate electrode;

forming a first amorphous semiconductor layer on the gate insulating film;

crystallizing the first amorphous semiconductor layer;

introducing an impurity element into the crystallized semiconductor layer so as to form a pair of impurity regions with a channel region interposed therebetween;

forming a second amorphous semiconductor layer so as to cover at least a portion of the channel region; and

forming a transparent conductive film on the second amorphous semiconductor layer and on one of the pair of impurity regions.

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50. A method of manufacturing an optical sensor according to claim 49, wherein the gate insulating film comprises at least one of silicon oxide and silicon nitride.

51. A method of manufacturing an optical sensor according to claim 49, wherein the crystallizing step is conducted by irradiating the first amorphous semiconductor film with a laser light.

52. A method of manufacturing an optical sensor according to claim 49, wherein the transparent conductive film comprises indium tin oxide.

53. A method of manufacturing an optical sensor according to claim 49, wherein the pair of impurity regions are a source and a drain regions.

54. A method of manufacturing an optical sensor according to claim 49, wherein the second amorphous semiconductor film is intrinsic.

55. A method of manufacturing an optical sensor according to claim 49, wherein the optical sensor is at least one of a linear image sensor and an area image sensor.

56. An image sensor comprising:

an optical sensor having a first electrode and a second electrode formed over a substrate;

a thin film transistor electrically connected to a first electrode of said optical sensor; and

a capacitor having a first electrode and a second electrode, wherein said first electrode of said capacitor is electrically connected to said first electrode of said optical sensor between said optical sensor and said thin film transistor, wherein said second electrode of said capacitor is at a ground potential, and wherein said second electrode of said optical sensor is electrically connected to a bias terminal.

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57. An image sensor of claim 56 wherein said image sensor is a linear image sensor.

58. An image sensor of claim 56 wherein a gate electrode of said thin film transistor is electrically connected to a shift register circuit.

59. An image sensor of claim 56 wherein said thin film transistor is electrically connected to a signal output terminal.

60. An image sensor comprising:

an optical sensor having a first electrode and a second electrode formed over a substrate;

a thin film transistor electrically connected to a first electrode of said optical sensor;

a capacitor having a first electrode and a first electrode, wherein said first electrode of said capacitor is electrically connected to said first electrode of said optical sensor between said optical sensor and said thin film transistor, wherein said second electrode of said capacitor is at a ground potential, and wherein said second electrode of said optical sensor is electrically connected to a bias terminal; and

an amplifier electrically connected to said thin film transistor in series.

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61. An image sensor of claim 60 wherein said image sensor is a linear image sensor.

62. An image sensor of claim 60 wherein a gate electrode of said thin film transistor is electrically connected to at least one shift register circuit.

63. An image sensor of claim 60 wherein said amplifier is electrically connected to a signal output terminal.--